


LR07**The smell of Parkinson**

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Keywords: olfactometry, Parkinson, test

INTRODUCTION/OBJECTIVES: Olfactory malfunction is one of the first non-motor signs of Parkinson's disease (PD). This dysfunction occurs in about 90% of early-stage PD cases and can precede the onset of motor symptoms by years. The mechanisms responsible for olfactory dysfunction are presently unknown, but we can diagnose this condition prematurely through olfactometry. Our review's purpose is to highlight the importance of this test for the elderly patients, after 65 years old, or for patients with risk factors such as genetics or environmental factors, a decreased level of dopamine or the presence of Lewy bodies in the brain.

MATERIALS AND METHODS: Various papers were analyzed, using the PubMed database, and studies which focused on this particular test and Parkinson in general.

RESULTS: A quantitative assessment of olfactory function was conducted using the T and T olfactometer assays. This test includes five types of odors at different concentrations. Odor deficiency is a feature of PD. Recent evidence suggests that over 90% of PD patients are diagnosed with significant olfactory loss. Olfactory loss in DP has a bilateral and general character and all olfactory fields are concerned. Clinical tests are available to quickly characterize olfactory dysfunction, including odor testing. Olfactory tests may establish hyposmia by identifying odors, assessing, discriminating and the odor detection threshold. Considerable efforts are being made to develop preventative or disease-modifying therapies that slow or halt the progression of PD.


CONCLUSION: Since it is essential to diagnose PD as early as possible, we believe olfactory tests could be the key to detection, prognosis and diagnosis.

LR08**TRANSDERMAL FENTANYL PATCH: A SMOOTH CRIMINAL**

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Keywords: fentanyl, opioid, toxicity

INTRODUCTION/OBJECTIVES: Fentanyl is a synthetic opioid analgesic used in anesthesia and pain management. There is an ongoing opioid overdose pandemic and this illicit use of fentanyl is derived from either illegally manufactured fentanyl or manipulation of medicines which contain fentanyl, especially fentanyl transdermal patches. There have been reported numerous cases of abuse and incorrect use of these patches, leading to death. Our objective is to shine some light on this matter and present the lifethreatening consequences related to fentanyl overdose.

MATERIALS AND METHODS: A literature search was conducted, using the PubMed database. In addition to this, pharmacology and toxicology textbooks were consulted. The search terms included were "fentanyl", "patch", "overdose", "toxicity".

RESULTS: Due to its high potency, rapidity of action and narrow therapeutic index of fentanyl, misuse and abuse happen often. The fentanyl that has been extracted from the patch can be administered through inhalation, intravenously and insufflation, by oral and transmucosal application, or by rectal insertion. Unintentional misuse and therapeutic error may occur because, after usage of a patch, a depot is formed into the keratinaceous layer of the epidermidis, which is associated with a slow onset and prolonged effects after administration. Naloxone is used for fentanyl overdose rescuing, although, most patients can't be revived.

CONCLUSION: There needs to be a clearer guide for patients using these patches, in order to limit the risk of error. A more in-depth analysis of the fentanyl transdermal patch delivery system is needed and more suitable therapeutic alternatives need to be suggested.